REMARKS

This Amendment, filed in reply to the Office Action dated May 13, 2008, is believed to be fully responsive to each point of objection and rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claim 10 is rejected. Claims 1-9 and 11-39 are withdrawn from consideration as being directed to non-elected inventions. Claim 10 is amended herewith, support for which can be found throughout the specification as filed, and at, for example, page 60, line 29 to page 63, line 13. Claims 1-9 and 11-39 are canceled herewith without prejudice or disclaimer. New Claims 40-44 are introduced herewith. Support for new Claim 40 can be found throughout the specification as filed, and at, for example, page 67, lines 6-23. Support for new Claims 41 and 42 can be found throughout the specification as filed, and at, for example, page 61, lines 22-30. Support for new Claims 43 and 44 can be found throughout the specification as filed, and at, for example, page 65, lines 2-4. No new matter is added by way of this amendment. Upon entry of this Amendment, Claims 10 and 40-44 will be all the claims pending in the application. Entry and consideration of this Amendment are respectfully requested.

Drawings

Applicants thank the Examiner for acknowledging acceptance of the drawings submitted October 12, 2005.

Information Disclosure Statement

Applicants thank the Examiner for returning an initialed copy of the PTO Form SB/08 that accompanied the Information Disclosure Statement filed October 12, 2005, acknowledging consideration of the references therein.

Claim 10 is Definite Under 35 U.S.C. § 112, Second Paragraph

On page 2 of the Office Action, Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

1. In one aspect of the rejection, it is asserted that Claim 10 is indefinite for omitting essential steps. Specifically, the Examiner asserts that the method does not describe how the receptor protein, its partial peptide or salt thereof, and the compound or element or salt thereof, are used in conjunction with the changes in binding property of the receptor protein or salt thereof to an ionizable metal element or salt thereof to determine if a substance is an agonist or antagonist to the G-protein coupled receptor.

In the interest of compacting prosecution, and without agreeing with the rejection, Applicants herewith amend Claim 10 to recite positive method steps of the claimed invention. Specifically, Applicants note that Claim 10 as amended recites a contacting step, a measuring step, and a correlative step to determine whether the compound or element or salt thereof is an agonist or antagonist. Applicants respectfully submit that the amendments to Claim 10 overcome this aspect of the rejection.

2. In a second aspect of the rejection, the Examiner asserts that Claim 10 is indefinite in that it is allegedly unclear which amino acid sequences are considered substantially the same as the sequence represented by SEQ ID NO: 1.

Whilst Applicants' maintain that one of ordinary skill in the art, in light of Applicants' disclosure and the mature state of the art, would appreciate the metes and bounds of the phrase "substantially the same," Applicants note that Claim 10 as amended does not recite "substantially the same," thus this aspect of the rejection is moot.

3. In a third aspect of the rejection, the Examiner asserts that the term "represented by" is confusing and ambiguous. The Examiner suggests that this aspect of the rejection may be overcome by replacing recitation of "represented by" with "of."

Solely to advance prosecution, and without agreeing with the rejection, Applicants herewith amend Claim 10 to recite that the G protein-coupled receptor protein comprises "the amino acid sequence of SEQ ID NO: 1." Applicants respectfully submit that the amendment overcomes this aspect of the rejection.

Withdrawal of the indefiniteness rejection is respectfully requested.

Claim 10 is Patentable Under 35 U.S.C. § 102

On page 4 of the Office Action, Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,599,718 (Liu *et al.*)

In making the rejection, the Examiner asserts that Liu *et al.* disclose GPCR39 (AF034633), which is alleged to be 100% identical to the G protein coupled receptor (GPCR) of instant SEQ ID NO: 1. The Examiner also asserts that Liu *et al.* disclose various methods of

identifying ligands (agonists and antagonists) for the GPCR comprising contacting cells expressing the GPCR with a compound suspected of being a ligand for the receptor and determining whether binding occurs.

Applicants respectfully disagree, and traverse the rejection on the following grounds.

First, contrary to the Examiner's assertion, at no point do Liu *et al.* teach or reasonably suggest using GPCR39 (i.e., the sequence in Accession No. AF034633) in a method for identifying agonists or antagonists of the GPCR. Rather, the method of identifying ligands of Liu *et al.* pertains solely to the use of GHSR-R, which as shown in the attached APPENDIX, possesses only 28% amino acid identity to SEQ ID NO: 1. For this reason, Liu *et al.* fail to teach an essential element of the presently claimed invention, and thus fail to anticipate Claim 10.

Second, Applicants note that the ligand for GHSR-R, as disclosed by Liu *et al.*, is neuromedin U, a neuropeptide. Such a ligand is clearly distinct from the ionizable metal elements employed as ligands in the presently claimed invention. Indeed, Liu *et al.* is entirely silent as to the use of ionizable metal elements as GPCR ligands, as is recited in the instant claims. Thus, for this reason, Liu *et al.* fail to teach yet another essential element of the presently claimed invention.

For the foregoing reasons, Liu *et al.* fail to teach each and every element of Claim 10, as is required to maintain a finding of anticipation. Accordingly, the rejection should be withdrawn. Further, since new Claims 40-44 ultimately depend from Claim 10, new Claims 40-44 are not anticipated at least for the same reasons.

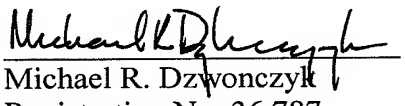
Withdrawal of the rejection is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: August 13, 2008

APPENDIX

Comparison between human GPCR39 and human GHSR

GHSR Growth hormone secretagogue receptor, a GPCR that binds to ghrelin (GHRL) and regulates body size; gene mutation correlates with familial short stature, SNPs correlate with obesity, abnormal mRNA expression correlates with pituitary neoplasms and adenoma

Score = 274 Length = 366 Expect = 2e-23

Identities = 90/322 (28%) Similarities = 153/322 (48%) Gaps = 38/322 (12%)

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|------##########################################################----------|

Query 40   IFVMGLLGNSATIRVTQVLQKKGYLQKEVTDHMVSLACSDILVFLIGMPMEFYSIIWNPL 99
           +FV+G+ GN  T+ V    ++   L+     ++ S+A SD+L+FL  MP++    +W
Sbjct 53   LFVVGIAGNLLTMLVVSRFRE---LRTTTNLYLSSMAFSDLLIFLC-MPLDLVR-LWQYR 107

Query 100  TTSSYTLSCKLHTFLFEACSYATLLHVLTLSFERYIAICHPFRYKAVSGPCQVKLLIGFV 159
             +   L CKL  F+ E+C+YATLL+ LT+S ERY AIC P R K V    +VKL+I  +
Sbjct 108  PWNFGDLLCKLFQFVSESCTYATVLTITALSVERYFAICFPLRAKVVVTKGRVKLVIFVI 167

Query 160  WVTSALVALPLLFAMGTEYPLVNVPSHRGLTCNRSSTRHHEQPETSNMSICTNLSSRWTV 219
           W  +   A P+   +G E+             N +      +  + ++ + L +   V
Sbjct 168  WAVAFCSAGPIFVLVGVEHE----------NGTDPWDTNECRPTEFAVRSGLLT-VMV 214

Query 220  FQSSIFGAFVVY-LVVLLSVAFMCWNMMQVLMKSQKGSLAGGTRPPQLRKSESEESRTAR 278
           + SSIF    V+ L VL S+      + + L + ++G    G     LR
Sbjct 215  WVSSIFFFLPVFCLTVLYSL------IGRKLWRRRRGDAVVGA---SLRDQN-------H 258

Query 279  RQTIIFLRLIVVTLAVCWMPNQI-RRIMAAAKPKHDWTRSYFRAYMILLPFSETFFYLSS 337
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